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An
Inaugural Thesis
on the
Nature and Treatment
of that
State of Disorder
generally called
Dropsy.
by
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224 Pa. Grand Lombard Street

admitted March 20th 1820.

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It is my design, in the following pages, to submit a few general observations on the pathology, and treatment of those preternatural accumulations of serous or watery fluid, which occur in the cellular membrane, and circumscribed cavities of the body and which have been comprehended by Nosological writers under the general appellation of Dropsy.

These may occur in persons of both sexes, and every age, though they are said most frequently to take place in women and persons advanced in life.

They seldom appear as a primary affection of the System, but are generally a consequence of some previous disease, either general or local, and very frequently accompany obstructions, and other disordered conditions of some one or more of the thoracic, or abdominal viscera.

They have been said to depend on a loss of equilibrium of action between the exhalent, and absorbent vessels. Physiologists suppose that in health, the former of these, secrete, and pour

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into every interstice of the body, a fluid which answers certain purposes in the animal economy, and is prevented from accumulating, by the action of the latter. These two systems of vessels may be considered as antagonists, and so accommodated to each other that, when in health the action of the exhalents is increased, a corresponding change is produced in that of the absorbents, and when the force of the latter is diminished, a similar variation occurs in that of the former.

But, when from any cause, the action of the exhalents is increased, or that of the absorbents diminished, without the corresponding change in both the necessary equilibrium is destroyed, and the fluid accumulates.

The manner in which this destruction of balance is produced, has always been a subject of great controversy among medical writers. "A debility of the solids," "a laxity of the exhalents" "a redundancy of watery particles, or deficiency of gluten,

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or, red globules in the blood," "a plethora of the vessels" "a rigidity of the exhalents," a palsy, debility, rupture, or retrograde action of the lymphatics", with many other hypotheses, have been advanced to account for it, but have all been abandoned as altogether conjectural and unsatisfactory.

By Doctor Cullen and most European physicians these accumulations of fluid were supposed most frequently to depend on, or to be accompanied with diminished arterial excitement, and always originating in debility. This imaginary state of debility was considered a specific condition of the system, and was designated by the name of Hydropic diathesis.

This hypothesis was founded on the fact, that these collections of fluid most frequently occur in persons who have been enervated by previous disease, or habits of intemperance, or who have lived on a scanty or poor diet.

Of late, precisely an opposite opinion has been advanced, and it has been as strenuously insisted that they depend, on a state of congestion and excessive

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action of the bloodvessels" and a "Phlogistic diathesis" of the system.

This opinion has been supported on the following grounds;

Firstly. Accumulations of fluid in the body, frequently appear immediately after those diseased conditions of the system, which are evidently accompanied with excessive arterial excitement, particularly where evacuating remedies have been entirely neglected, or but sparingly employed.

Secondly. They sometimes alternate, or are connected with these states of disease.

Thirdly. This opinion of their nature was supposed to be confirmed, by the remedies employed for their removal, acting as evacuants.

Fourthly. As a congested state of a gland was deemed necessary to its increased secretory action, it was infered that a similar state of the blood vessels must occur in the cases under consideration.

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ent pathologists have considered the ailments as mere morbid modifications of the same entities and obliterated in their operations wholly and entirely by them. Viewing them in this light our ideas of their normal condition must necessarily be exceedingly limited and imperfect and all our attempts to explain its phenomena will not only prove abortive but by raising up difficulties which are essentially connected with it will increase our confusion and, if possible, render the obscurity more obscure.

The human body may be compared to <u>our</u> great republic in which the individual <u>states</u> composing it, enjoy their own peculiar prerogatives and have their separate interests in some measure independently but at the same time derive all their strength from and almost all their existence to their connection and mutual dependence; for, while all the subordinate parts or organs of the body perform their peculiar functions, they

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we so connected and so mutually depend on each other both in health and disease that a change in the condition of one soon seems without the operation of the rest being modified in it.

The connection has been called sympathy and exists in higher or lower with different degrees of power in different parts of the body and though it is more apparent in some than in others, no division of the body can be said to be entirely out of the sphere of its influence. Now admitting the existence of a separate system and allowing them to perform their own peculiar functions, then we may believe that their operations are not entirely controlled by any particular guide of internal excitement.

By thus raising these efforts from their degraded state of dependence to their higher rank we will not hesitate to acknowledge that their action may be as easily modified by a deadened state of the Stomach Liver Spleen &c. in Scurvy or any other part of the body under any peculiar tracts of internal excitement as

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that the condition of any one of these may influence that of another without the necessary interference of the blood vessels.

The late Doctor Rush taught, that "the power of the exhalent and absorbent vessels is materially affected by too much or too little action in the arterial system"

That both these states of arterial excitement do frequently accompany an increased action of the exhaling and absorbing vessels is certain, that they often modify it or that they may sometimes cause it cannot be denied but that they produce or keep it up in every case is extremely problematical.

From the one side it is that the two systems of vessels are modified by the two opposite states of arterial action above mentioned yet for the discussion of the disease state under consideration which is admitted by all to be one of atonic, he appears to consider it as depending on them.

If in every instance one or the other of these two states of action of the arteries occurred we might hesitate in

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doubtful the existence of this disease but we can scarcely without the fear of contradiction that this is not the fact.

Many attempts have been made to divide these accumulations into distinct genera according to their seat, or the pathological state of the circulating fluids. The division in most general use is that founded on the seat of the collection, but as each of these varieties may occur from different causes or all from the same common causes and as all require nearly the same general treatment this arrangement is of little practical utility, though it may assist us in our diagnosis, the danger depending Certainly rather on the importance of the part to vitality.

A preternatural collection of fluid may occur in one part of the body without affecting any other or it may invade the whole system at once. There are few symptoms attending it that can be regarded as essentially connected with or inseparable

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attendant on it; of these the only invariable one is the swelling which when it occurs externally is visible and presents an appearance easily recognised, and when internally produces more or less derangement in the functions of organs in its neighbourhood. Most frequently it first makes its appearance in the lower extremities, producing in the commencement a soft inelastic swelling of the feet and ankles which becomes pitted by pressure with the finger and very slowly returns to its former shape after the pressure is removed. The swelling is generally most evident after the patient has remained some time at rest, particularly if he use no exercise, and subsides partially when he is in a recumbent posture. Gradually it increases the morning advances gradually to the thighs and the genitals and then sometimes to the abdomen and chest. Usually it remains confined to the extremities and is connected with no disorganization of any of the viscera it produces no very great inconvenience but in the majority of in=

stress it put to the whole economy, not on the relative importance of it counts but also its capacity, and interfering with the functions of the viscera contained in it. The patient complains of a sense of weight in the chest and his respiration becomes difficult particularly when he is in a recumbent posture. If at this time the abdomen be gently struck with the fingers an obtuse fluctuation may be perceived which serves to characterise the disease, except in cases where the fluid is retained in distinct sacs.

Still observing the chest we find it marks the thoracic organs, the pericardium or one or both sacs of the pleura, and now our attention the most distinguishing in their nature appears. The patient breathes with great difficulty, is troubled with an almost incessant cough attended sometimes with a sense of suffocation, his countenance is pallid, bloated and dejected, his pulse is quick, the skin is hot, he cannot rest in a recumbent posture, his sleep is short interrupted and broken, and attended with unpleasant dreams. During violent

[illegible] of both or agitation of wind produces the most [illegible] [illegible] of the [illegible].

If the communication [illegible] is continued [illegible] to the cavity of the thorax the air [illegible] may be recognized with some of the [illegible] state of the [illegible] particularly of the [illegible] [illegible] [illegible]. [illegible] has been said it may sometimes be distinguished by an evident enlargement and change of form in one or both sides of the thorax, but though this may sometimes occur it is not very common. Some have supposed that by striking the sternum with the fingers the fluid would be set in motion and its fluctuation made to be heard. Pressure on the abdomen has also been employed as a mode of distinguishing this from other morbid conditions of the thorax. This by forcing the abdominal viscera upwards diminishes the capacity of the thorax and thus interferes with the operations of the viscera contained within it but it as effectually does this in any of the arrangements of the thoracic viscera as when a fluid is collected in that cavity. So far I believe there is no one diagnostic sign that can be said

to be found the cause and cure of dysentery.

In all cases where this combination occurs whatever may be its origin, if any other disorder, the system in consequence of it the symptoms of both are for the most part greatly aggravated and a state of things is produced very difficult of management. Indeed it seldom does take place unattended with an excess of disordered state of some other parts of the body besides those employed in the digestion and absorption of the fluid.

The stomach and alimentary canal may be variously affected. Sometimes they continue to perform their functions with integrity but generally they are more or less irritated and disordered, we have reason to suspect the cause of all the mischief to originate in them.

The fever seldom remains free of disease and seldom never in persons who have produced the disorder by excess in eating or drinking. This viscus is indeed generally the first to fail under the heavy burden imposed on the system by intemperance.

As progress is accomplished the arterial system which has

can very appropriately stand the real basis of the general system and which, or its antithesis, so promptly and universally with the exits of the body, generally deviates more or less from its healthy course and is said most frequently to become small, frequent, and hard, and when the fluid resembles the chyle in intermission, or occasional long intervals intervene between its pulsations, is often recognizable. But though the state of pulse which I have mentioned most frequently occurs, we have ample evidence from the records of cases in which the condition of the arteries has been noticed that every possible variety occurs in its volume, frequency, and force.

The tidings so clearly indicated in this state of pulse are seen when a glance at its character.

In man is generally greatly diminished in quantity, and there is often so striking an alteration of its qualities as to have induced at the subject of such serious investigation. Dr. John Black, the a distinguished English physician has examined these changes with great industry and care, and

particularly to point out that it contains accounts of coagulation in the application of heat or the addition of rennet to it. The fact is the result of numerous experiments that this result is produced by the milk in cases where there is no actual curdling; that more rennet in quantity is required to curdling a cold portion and not coagulate in heat or vice versa is indicative of a different kind of condition of the milk in these cases. In the first case the milk is not a constituent of the cheese, the milk is just there, in quantity, is not coagulated by heat or rennet, and does not deposit any sediment.

Now, if this statement is correct, conclusions with regard to the subject, it is not necessary that the milk should be inspected, the use in determining the date of a cheese statement, or the various relations of the different portions, in regard to a knowledge of the condition of the milk for the question changes in the quantity and quality of the milk. For first the milk sometimes contains artificial coloring matter, but it may be in very minute

some change should occur, or should the [illegible] condition [illegible] in certain cases in its [illegible], then would there [illegible] [illegible] evidence of the [illegible] of the system.

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Treatment.

To enumerate the various articles employed in the cure of this [illegible] condition of the system would make it necessary for me to notice almost every article of the Materia Medica, for there are but few remedies that have not at some time been used in its treatment, and of whose efficacy there is not some evidence on record.

The indications generally consist in the removal of the accumulated fluid [illegible], the most urgent indication which will then remain [illegible], the discovery of remedies sufficient to [illegible] the [illegible] to reduce the [illegible] it [illegible] the most [illegible], [illegible]

specific is indiscriminately employed in every case.

This, to speak in extenuation, having from its undeviating administration often raised to a setting the wonted cure, or sometimes even produced positively injurious effects is not on stripped of its well earned fame but is denied the merit to which it may perhaps be still entitled, and is succeeded by some other remedy equally extolled which must inevitably soon share the fate of its predecessor. But when we consider the immense variety of circumstances under which the proper balance of action between the exhalent and absorbent systems may occur, we will not be inclined to hope that a mode of treatment which will at one time prove strikingly efficacious at another time not only fail of success but even produce effects decidedly injurious. In fine as in all other cases "Correct practice consists in the administration of proper remedies in the proper dose". Though there are unquestionably great difficulties attending the cure of disease, which are the causes I must

The pages here removed, contained sundry obs^ns on the subject of Nosology, which the Med: Faculty deemed to be improper, & not to be sanctioned by them — With this impression, Mr. Whilldin was required, on the 24th inst^t. to eradicate the parts disapproved of — which was accordingly done — by himself, in presence of the Faculty. —

which I feel confident that the want of success in attempts at its removal is in very many instances attributable to the [illegible] in adhering [illegible] remedy to one particular symptom without the slightest reference to the immense variety of circumstances under which it may occur. For the legitimate [illegible] of Pathology is an [illegible] not only in the [illegible] it has [illegible] in the [illegible] of human physicians but in the [illegible] is it [illegible] commit to the [illegible] it [illegible] the [illegible]

[illegible] Among the [illegible] of its [illegible] Doctor Sydenham [illegible] one instance in his treatise of the [illegible]. to [illegible] in effects [illegible] ([illegible]) [illegible] he says he terms it [illegible] and [illegible] aux [illegible] in the [illegible] but having pursued [illegible]

"If the patient [illegible] not can be discovered in the distance of another [illegible] who administered more [illegible] remedies." And such will be the mis=
takings of even practitioners who adhere to homœ=
opathy a name given to a [illegible] combination of symp=
toms instead of watching attentively the man's change
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Doctor Rush was well convinced of a Indian who in=
duced him to consult the Bermudian Sailor, who when he
set out on a voyage, then put him from both sides
of the ship to drink one as guide on his return.
"When the patient comes in at any point it is to
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it forth from the tent of prejudice in which it is sometimes buried, and devoting himself of the resources of early education, will firmly stand as its advocate regardless of the weight of opposition he must meet.

I cannot here withhold my humble tribute of gratitude and praise to that great benefactor of mankind, whose gigantic powers shattered the fetters of theological tyranny and who first so warmly advocated the national liberty of his country, believed in "Free thought in Medicine." Inspired by an ardent love of truth, and encouraged by the hope that it would prove a shield against the most powerful opposition yet to be encountered and increased it but stood almost alone in its defence, and to see from being discouraged by the various obstacles which were so mountainously thrown in him, viewed them as incentives to redoubled efforts, and became strong in resistance. But though he has done much, though he has entered the arena, and made his final examination certain, the conquest is not yet so complete and he still finds that even in the very [illegible] in which

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[illegible] the [illegible] that [illegible] the [illegible] is [illegible]. [illegible] among physicians, there [illegible] the [illegible] of the [illegible] the [illegible] the state having led them to the adoption of very opposite modes of treatment. In one side it is maintained that it [illegible] or depends on [illegible] and [illegible] an invigorating plan of treatment.

French [illegible] most pernicious practice of administering without distinction or [illegible] cordial and stimulating [illegible] in every case which most [illegible] measures are forbidden. A [illegible] operation which is considered as seldom admissible and always hazardous, and which though it has been occasionally employed from the time of [illegible] to the [illegible]ent day, has been generally [illegible] It [illegible] a deviation from established rules of practice.

So much indeed is its use deemed by many as an innovation that they employ the lancet with all the caution necessary in a most dangerous instrument and when they do venture upon its use they do it with a view of relieving some distressing or immediately dangerous symptom rather than as a part of a curative plan.

Dr. Donald Monro in his "Essay on the Gout" says "If the distention is sudden and the patient strong and plethoric, bleeding must not be omitted. For daily experience teaches us that in this manner alone we see obstructions in inflammatory fevers quickly contracting, the sides can be taken speedily and agreeably freed from these disorders." Again. "Where the foot is thick and big, when its momentum too great in the vessels which are after the case with long, and the rooting with inflammation must be insured as the patient must be bled through the symptoms of the gouty nature."

But so little was he guided by correct principles in the employment of the lancet that having two patients at the same time under similar

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the fourth point.

circumstances after the one had gradually grown worse under the use of other remedies he directed me to lose six ounces of blood to relieve a great difficulty of breathing under which she laboured. This had the desired effect, and the medicines which she had before taken without any benefit now operated well and after a second bleeding she recovered. Case of the other he says "I at first ordered him the same medicines as Mary Woods and on the 2d & 3d was intending to have had him bleeded as well as her; but from the prejudice there is against bleeding in dropsical cases, I thought it was better to delay it till I saw what effect it should have on the gut. I returned next day to the hospital to see these two patients, but the boy was dead." Though in the first of these cases blood-letting was necessary with a view of relieving a distressing symptom it returned a remedial part in the cure. I may here observe that in both these instances the pulse was small and quick. He tried even Dr. Blackall the most approved more in contra-distinction to strong the same distrust of the energy.

Thus restricted to the [illegible] intervals of the attack, the duration of his disease or the [illegible] symptoms that may sometimes attend the exhibition of the remedy [illegible] being thus limited and we will be able to combat the disease in its most inveterate forms with its consequent weakness.

When I thus advocate the judicious employment of the lancet I would not go the length of those who suppose the disorder to depend on a phlogistic diathesis a state of the body equally indefinite and unintelligible with that of "irritability", and insist that bloodletting is generally necessary and some depletory measures always indispensable and thus by shunning one evil fall into another equally pernicious. Of the nature of the disordered operations in the system which produce this phenomenon, or how remedies act in preventing or removing it we are entirely ignorant. Nor can I take on myself to say what are the precise circumstances under which bloodletting is proper or necessary, though we have abundant evidence that it is important [illegible] remedies. I [illegible] in the [illegible] a [illegible] [illegible] [illegible] [illegible] [illegible]

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cation of the parts to which they were applied, but this effect is not to be apprehended except in cases where the skin is greatly distended and the circulation very languid in it.

5thly. When the fluid occupies the abdominal or Thoracic cavity and the symptoms become very urgent the operation of Paracentesis is sometimes resorted to.

Tapping the abdomen is an easy and safe operation, but from the difficulty of ascertaining the precise seat of the fluid in the Thorax, the operation for relieving that cavity is now nearly if not entirely abandoned.

To the remedies already enumerated might be added many more if it were requisite. I regret indeed that the list is so extensive as it only tends to prove their uncertainty. But I look forward to the day in which the catalogue will be greatly abridged, when in the place of the many uncertain remedies, we shall possess a few, which judiciously administered will be of less doubtful efficacy